## TOUGHBOOK





### Main Features

Tested to MIL-STD-810F. IP54 Rated. **Shock-resistant body** survives a 90-cm free-fall

**Operates with the** standard battery for up to 8 hours.\*2

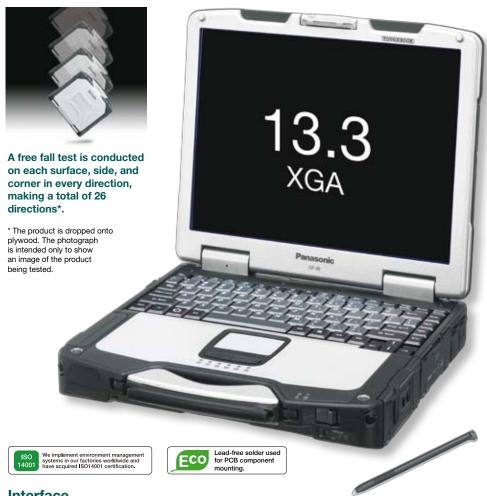
**High-brightness LCD with Circular Polarising Touch** Screen and anti-reflection (AR) coating for easy viewing under direct sunlight (1000 nit).

Various options can be built-in:\*3 GPS, 3G, Optical Drive, Fingerprint Scanner, Smart Card Reader, 2nd Battery Pack, Backlit Keyboard.

- Integrated Bluetooth™ as standard.
- The pressure sensitive touchscreen and touchpad can be operated even while wearing
- Easy hard disk removal and security functions for hard disk protection.
- Serial, USB 2.0 and IEEE 1394a connectors as standard.
- Integrated handle for increased efficiency when operating in the field.

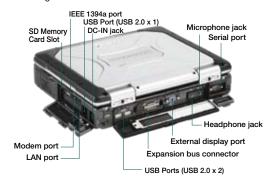
Panasonic Recommends Microsoft®Windows Vista™ Business.

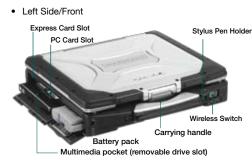
# A High-Performance Ruggedised Mobile Notebook with Shock-, Spill- and Dust-Resistance



#### Interface

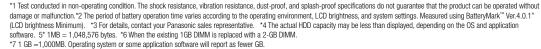
Right Side/Back





- Microsoft® Windows® Vista™ Business (XP Downgrade DVD in box)
- Intel<sup>®</sup> Centrino<sup>®</sup> Technology:
  - Intel<sup>®</sup> Core 2<sup>™</sup> Duo Processor
  - (Low voltage version L7500): 4-MB L2 cache, 1.60 GHz, 800-MHz FSB Built-in Intel® PRO/Wireless 4965 ABG (802.11a/b/g)
- Security-Authentication: LEAP, WPA, 802.1X, EAP-TLS, EAP-FAST, PEAP Encryption: CKIP,TKIP,128-bit and 64-bit WEP, Hardware AES
- HDD: 80 GB\*4 SATA
- RAM: Standard 1 GB\*5 (4 GB max.\*6)\*7
- TFT color LCD: 13.3" supporting XGA resolution









### Panasonic recommends Microsoft® Windows Vista™ Business.

CF-30Mk2		CF-30FTSAXAM
Operating System		Microsoft® Windows® Vista™ Business (XP Downgrade DVD in box)
СРИ		Intel® Centrino® Core 2 Duo Processor L7500 (1.60 GHz, 4 MB <sup>-1</sup> L2 cache, 800 MHz FSB)
Chipset		Intel® GM965
Memory*1		1GB (1 GB Max.) DDR2 SDRAM
Video Memory*1*2		UMA (384 MB Max.)
Hard Disk Drive*3		80 GB SATA
Display Method		13.3 XGA type (TFT) with Touchscreen 1000cd/m <sup>2</sup>
Wireless LAN		Intel PRO / Wireless 4965 ABG (802.11 a + b + g)
Bluetooth		Version 2.0+EDR
LAN		IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T (10/100/1000)
Modem		Data: 56 kbps (V.92) FAX: 14.4 kbps
Sound		WAVE and MIDI playback, Monaural speaker, Intel® High Definition Audio subsystem support
Security Chip		TPM (TCG V1.2 compliant)
Card Slot	PC Card	Type I or Type II x 1 (3.3 V: 400 mA, 5 V: 400 mA)
	ExpressCard	ExpressCard/34 or ExpressCard/54 x 1
	HCSD Memory Card®	x 1, Data transfer rate = 8 MB per second <sup>19</sup>
	Smart Card <sup>*10</sup>	x 1 Optional
RAM Module Slot		200-pin, 1.8 V, SO-DIMM, DDR2 SDRAM, PC2-4200 Compliant
Interface		USB port (4-pin, USB 2.0) x 3, Serial Port (Dsub 9-pin male), Modem port (RJ-11), LAN port
		(RJ-45), External display port (Mini Dsub 15-pin female), Expansion Bus Connector (Dedicated
		80-pin female), External Antenna Connector (Dedicated 50 $\Omega$ coaxial connector), IEEE 1394a
		Interface Connector (4-pin x 1), Microphone Jack (Miniature jack, 3.5 DIA, Monaural), Headphone
		Jack (Miniature jack, 3.5 DIA, Impedance 32 $\Omega$ , Output Power 4 mW $\times$ 2)
Keyboard / Pointing Device		87 keys / Touch Pad / Touchscreen (Anti-Reflection, Stylus (included) touch capable)
Power Supply		AC adaptor, DC adaptor or Battery pack
AC Adaptor		Input: 100 V to 240 V AC, 50 Hz/60 Hz, Output: 15.6 V DC, 5.0 A
Battery Pack		Li-ion 10.65 V, 8.55 Ah
	Operating Time <sup>*11</sup>	Approx. 4hours at set to maxim brightness setting(typ:1000nit) Approx. 5hours (typ:500nit) to Approx. 8hours at BIOS default setting 12 Approx. 8hours 13
	Charging Time*11 (Power on)	Approx. 8.5Hours
Rated Power Consumption		Approx.45W
Physical Dimensions (W × H × D)	(including the carrying handle)	302 mm × 67.5 - 69.5 mm × 292 mm
Weight	(including the carrying handle)	Approx. 3.8 kg
Operating Environment		Temperature: 5 °C to 35 °C
		Humidity: 30% to 80% RH (No condensation)
Storage Environment		Temperature: -20 °C to 60 °C
		Humidity: 30% to 90% RH (No condensation)
Utility Programs		DMI Viewer, Microsoft® Windows® Media Player 10, Adobe Reader, PC Information Viewer,
		SD Utility, Icon Enlarger, Loupe Utility, Intel® Matrix Storage Manager, Intel® PROSet/Wireless
		Software, Bluetooth Stack for Windows® by TOSHIBA , Wireless Switch Utility, Hotkey
		Settings, Battery Recalibration Utility, Panasonic Hand Writing, Infineon TPM Professional
		Package <sup>*14</sup> , Recover Pro <sup>™</sup> 6 <sup>*14</sup>
		Setup Utility, Hard Disk Data Erase Utility <sup>15</sup> , PC-Diagnostic Utility

<sup>\*1 1</sup>GB = 1,000MB.

The transfer rate using the SD Memory Card slot on this computer is 8 MB per second. (This is a theoretical value, and differs from actual speeds.)

The transfer rate is 8 MB per second even if you use an SD Memory Card that supports high-speed transfer rates.

Operation on other SD equipment is not guaranteed.

This computer is not compatible with MultiMediaCards.

- \*9 Theoretical value and not the actual speed. The transfer rate does not become higher even if you use a card that supports the higher transfer rate.
- \*10 Only for model with Smart Card slot.
- \*11 Varies depending on the usage conditions.
- \*12 Measured using BatteryMark. Version 4.0.1 (LCD brightness: Maximum Minimum at BIOS default setting).
- \*13 Measured using MobileMark. 2002 (LCD brightness: 60 cd/m2).
- \*14 You need to install to use the feature.
- ${ ilde *15}$  The Product Recovery DVD-ROM is required.

Panasonic reserves the right to change design and specifications with out notice.



<sup>\*2</sup> A segment of the main memory is allotted automatically depending on the computer's operating status. The size of the Video Memory cannot be set by the user.

 $<sup>\</sup>star 3.1 \, \text{GB} = 1,000,000,000 \, \text{bytes}$ . Your operating system or some application software will report as fewer GB.

 $<sup>\</sup>ensuremath{^{\star}4}\xspace \ensuremath{\text{A}}\xspace 16,777,216$  color display is achieved by using the dithering function.

<sup>\*5</sup> Maximum resolution depends on the specifications of the external display.

<sup>\*8</sup> Operation has been tested and confirmed using Panasonic SD Memory Cards with a capacity of up to 32 GB.